PHMC Lessons Learned/Operating Experience

Good Work Practice

Injury Prevention Intervention

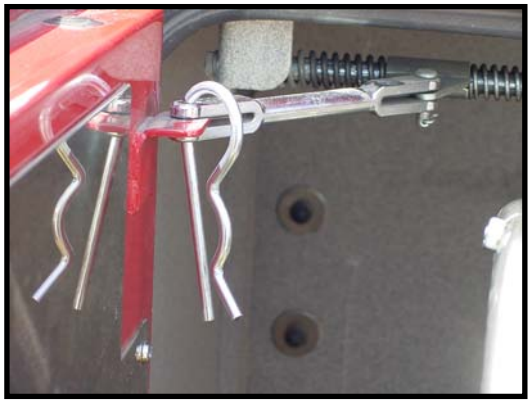
April 22, 2008 **2008-RL-HNF-0011** **Tracking No: 658**

Summary: On May 11, 2007, two Hanford Fire Department (HFD) crew members were conducting daily vehicle inspections of a fire engine and the equipment on the engine. During the inspection, a generator motor was lifted out of a compartment, resulting in a shoulder injury to one of the firefighters. To prevent this from recurring large removable pins replaced the existing hinge pins on all similar compartment doors on HFD fire engines.

Discussion of Activities: Two firefighters were performing vehicle inspections at the fire station and lifted a gas-operated hydraulic motor out of a fire engine compartment in order to perform a functional test. Due to the compartment configuration, the firefighters reached over the top of the compartment doors to lift the motor. As they were lowering the motor to the ground, one of the firefighters heard a pop in his left shoulder and felt immediate and intense pain.

The employee was transported to first aid, the shoulder was stabilized and the employee was transported to an off-site medical facility for further evaluation and treatment. The employee returned to work with a restriction. Subsequently an MRI revealed sufficient damage to the shoulder to require surgery. The employee returned to work two months later.

Analysis: The compartment doors were restricted from opening flush against the body of the fire engine. This prevented clear and easy access to the motor.



The hinge pins on all compartment doors were replaced with large removable “cotter-like” pins. This modification allowed the pins to be removed so the doors could open fully.

Modified Access Hinges

Modified Door Opening

Recommended Actions:
While these changes were made to fire fighting vehicles, this intervention can be applied to numerous types of service vehicles throughout the DOE complex. Any vehicle or storage cabinets having access doors which limit the ability of personnel to easily access and remove material/equipment from the storage area can use this intervention.

- Where access doors are restricted from fully opening, install large removable pins on storage compartment doors to allow easy access.
- Train personnel on the proper methods/techniques of removing materials and equipment from restricted access storage areas.

Work Function: General, Fire Protection

Hazards: Personnel Injury, Ergonomics/Lifting

ISM Core Functions: Analyze Hazards, Develop/Implement Controls

Originator: Fluor Hanford Inc. submitted by Rich Kobelski

Contact: PHMC Lessons Learned; *(509) 372-2166; e-mail: PHMC_Lessons_Learned@rl.gov*

References: Human Performance Improvement (HPI) Review - Firefighter Shoulder Lifting Injury – May 11, 2007